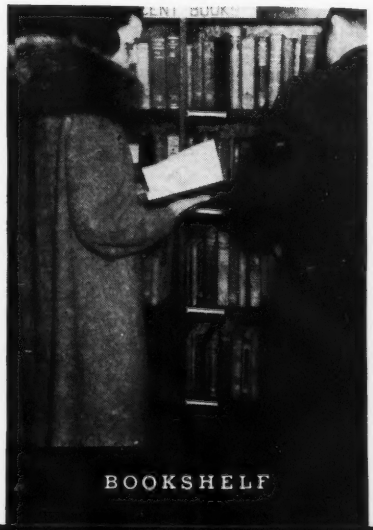
CONSUMERS' GUIDE

OCTOBER 1, 1940

MEAT


BOOKSHELF

VACUUM CLEANERS

FOOD SUPPLIES

CONSUMERS' GUIDE

OCTOBER 1, 1940 VOLUME VII, NUMBER 1

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MEAT PRICES have made headlines in recent weeks. During August and early September most kinds and cuts of fresh meats scored large increases in retail price. Later in September some of these prices went down much, others a little.

Various explanations have been offered by different observers, but unfortunately the careful researcher of statistics will find no positive evidence with which to justify all the increases or to condemn any particular increase in any one city.

Meats usually are a fairly expensive form of food, but most consumers are willing to pay something extra for them as a savory and palatable addition to the family table. Over the past 15 years meats as a whole have become more expensive. That is to say, their prices have been going up more or going down less than the average of all food prices. This has been particularly true of beef. It is not true of pork this year. Leg of lamb, during these years, has been getting a little cheaper, chickens a little more expensive.

Right now, more interest hangs on more recent happenings. It is quite usual for beef and pork prices to move up in August and to reach a seasonal peak in September. Hog supplies are low then. The supply of cattle is approaching its seasonal high, but often is not large enough, especially in the better grades, to take care of the sudden appetite for a good steak or roast with which consumers celebrate the first cool weather and the end of summer menus.

This year the seasonal flurry assumed major proportions. Here is the story meat by meat.

Beef prices for chuck, rib roast, and round steak in 51 cities appear to have gone up 2 cents a pound between the middle of August and the middle of September. Probably these mid-month reports furnished by the Bureau of Labor Statistics on "good" quality beef will not show the full amount of the seasonal increase. From the New York City Department of Markets where average retail prices for 7 beef cuts of "very good" quality are reported each week, we learn that, from the first week of August to the first week of September, two cuts of beef went up 8 cents, and 5 others went up 5, 6, or 7 cents a pound. The larger increases were in the higher-priced cuts. By the end of September, in the New York City reports, not quite half of this seasonal rise had been canceled by declines later in the month. At the end of September 2 cuts were 4 cents higher than a year ago, one was 3 cents higher, 2 were 2 cents higher, one was one cent higher, and one was at the same price as in 1939.

Fresh pork prices in the 51 cities appear to have gone up on the average 1½ cents between mid-August and mid-September. In some cities they went up more than that, in others they went down. In New York City the whole seasonal increase was 9 or 10 cents a pound, followed by sharp reductions which, by the last week of September, left prices 2 and 3 cents higher than in early August. Reports from the 51 cities and from New York City indicate that fresh pork at retail in the latter part of September was at about the same or a little lower level than a year ago.

Smoked pork products did not go up and down in price appreciably during this period and have been considerably cheaper than last year—3 or 4 cents a pound cheaper.

Lamb prices seem to have gone up less than a cent a pound in the 51 cities between mid-August and mid-September. But the New York City weekly reports, showing the whole seasonal movement, record increases ranging from 4 cents a pound on cheaper cuts to 11 cents a pound on more expensive cuts. By the end of the month the cheaper cuts were 2 to 4 cents higher than at the beginning of August, but the more expensive cuts were lower than when the seasonal rise began. Compared with a year ago lamb prices appear to have been about the same in the latter half of September as at that time in 1939.

While retail beef prices in New York City were going up 5, 6, 7, and 8 cents a pound, prices paid for live cattle in Chicago advanced as follows: prime and choice grade, 1¾ cents per pound (live weight); good grade, almost 1½ cents; medium grade, about one-half cent; common grade, about a cent.

Retail prices go up, or down, more than cattle prices because it takes more than 2 pounds of live animal to make a pound of beef for the consumer. The retail cuts for which prices are reported represent only a part of the beef which a butcher sells. However, it appears that these retail increases at their top had run ahead of the increased prices of live cattle. This is confirmed by the fact that retail cuts at the end of September had shed off almost half of their earlier increase, although cattle prices had declined only slightly.

Many lessons for consumers who aim to be smart when they buy meat may lie hidden in such statistics. Two, however, are not hidden but stand up and stare them in the face.

Lesson 1 has to do with the quality grades of beef. When beef prices begin to move around, high-grade cattle which yield high grades of beef may change their prices up or down more rapidly than low grades of cattle yielding low grades of beef. Market prices for the live animals are reported on different grades of cattle. Retail prices are not reported for different grades, largely because it is hard to find out what grade of meat is sold in retail markets. Judging by prices of medium and low grades of cattle, however, retail prices of medium and low grades of beef should not have gone up much in August and September.

When higher quality beef prices move up much more than lower quality, one obvious way to economize is to switch to the lower grades. A caution here is that prices of lower grade beef may not be as low as they seem when allowance is made for the greater losses due to bones and to shrinkage in cooking.

Lesson 2 is in cuts of beef. Larger increases occurred in the prices of more desirable cuts. This will usually happen when beef prices are going up. The lesson for money savers is to try cooking the cheaper parts of the carcass and make them tasty. They are equally nutritious. In the next issue *Consumers' Guide* dissects the carcasses of beef, veal, lamb, and pork, telling how the different cuts can best be used and how much edible meat you are likely to get from a pound of each cut.

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"Lunch is Ready" in Kent County, Maryland

Started with the help of the County Home Demonstration Agent and women in Parent-Teacher Associations and Homemakers Clubs, Kent County's School Lunch Program will bring a nourishing hot lunch each day to every elementary school child through the winter months. By-products of the program so far: better attendance, better farm gardens, more canning for winter use

KENT COUNTY'S history spans 7 generations of farming. Rolling fields spread over the countryside and jut out into the Chesapeake. The Sassafras and Kent rivers meander through and around the fields. The water-fringed country is fun to play in, for those who have the time and money. Farming is hard. Kent's thousand farm families have to struggle to raise the produce that will buy back an adequate and decent living. Some of them live in the kind of rundown Revolutionary house which city folks sometimes buy and restore for a sum equal to the net income of the county's entire population. Spread around their houses, most farmers have a hundred or more well-worn acres.

For a long time peach orchards flourished in Kent's mild waterbound climate. Farmers flourished along with them until disease and southern crops wiped out profits. Next crop most farmers tried was grain, but midwestern farmers could do better with grain crops than these Maryland farmers. They turned to new ways to make farms pay a little dividend. Some added truck crops: tomatoes and asparagus. Some took to raising turkeys. Many made dairying their chief source of cash income.

Farming by generations of low income farmers has taken a great deal from Kent soil. Few could afford to plant cover crops. Few could afford to put back into the soil, through fertilizer and lime, the nutrients that crops had devoured. Neglect of soil runs up a double cost: the loss of income and the loss of land. Until soil conservation got under way, erosion had gnawed at all but 15 percent of the crop lands. In some places its damage was slight; in others, it was severe enough to make farming forever again impracticable.

Now Kent's farmers, with Government help, have a chance to do something to repair the damages from neglect. Already, visitors with an eye for sound farming methods can pick out many acres of contour planted land, fields recently returned to permanent pasture, the beginnings of reforestation where poor farming has spoiled the land forever. Agricultural benefit payments help farmers to meet the costs of new soil building practices.

Poor land, as most people now know, makes poor living, and sometimes human erosion is worse than soil erosion. Kent's farm families woke up to the human erosion going on in their county back in 1935 when the superintendent of schools made his annual report. It made them sit up and take notice. It said that school attendance was poorer in Kent than in any other Maryland county.

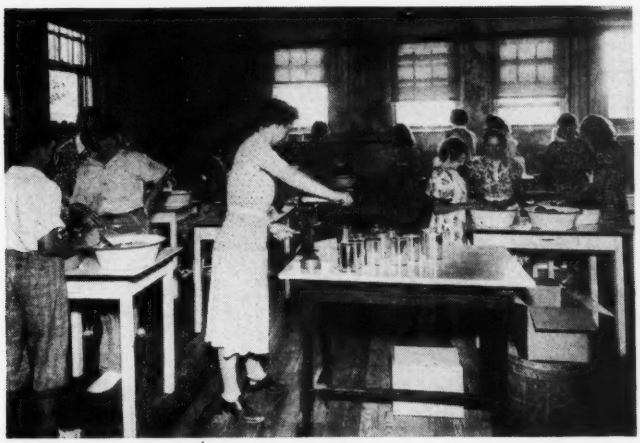
The women soon saw the connecting lines between poor school attendance and poor land poorly farmed. A group of mothers in a home demonstration club stopped swapping recipes, talking town topics, and fussing about home improvement programs long enough to discuss the superintendent's report. They started looking for the reasons why their children and their neighbors' children were out of classrooms so much. They found sickness was a large cause of absence. They decided improper diets and undernourishment were the body weakeners that let disease come in. They found that many

[*Concluded on page 7*]

UNDERWEIGHT CHILDREN mean undernourished children in any man's language. Undernourished children often go to bed more than to school. The Home Demonstration Agent, the officers of the Homemakers Clubs, and the Parent-Teachers' Associations decided hot lunches would help cure the evil, and gardens started to raise vegetables for canning would benefit the whole family.

SCHOOL LUNCHES were started when mothers learned Kent's attendance was the poorest in Maryland. Searching for causes, they enlisted the Health Department's aid. The Public Health nurse found all but 3 out of 40 children in one school were more than 40 percent underweight. First item on the agenda, everyone agreed, was finding a way to build up these frail bodies by the better diet route.

FIRST year the Home Demonstration Agent visited 125 families in one month. She urged them to plant carrots, cabbage, beans, peas, turnips, and tomatoes so each family would have enough for themselves and some for school canning. The amount canned by each school depends on the success of the gardens. Each family contributes what it can spare for school, after providing for its own needs.



CHILDREN BRING the vegetables to school on canning day. The County Agent measures quantities, has cans ready. Parents, teachers, and children lend a hand. Pressure cookers and a can sealer are part of the Agent's equipment. Parents share cost of cans, bought in large lots at a saving. Cost of cans for 9 quarts is 30 cents; for jars, 89 cents.

CANNING ROSE from 350 to over 1,000 quarts, from 1936 to 1939. This boy keeps an eye on supplies. He has learned from the Home Demonstration Agent how much food will be needed for the week's lunches. Some families supply milk, potatoes, onions, or home-canned tomatoes; others contribute beans or cocoa, to fill in with canned goods.

IN SCHOOLS where there's room and equipment for cooking, older children take charge from the start. Coming from farm families they have an advantage over city children. Their families can produce the food they need for health at less cost than city folk can buy it. Diet habits that children learn, and gardens that families start, mean healthier children today. They'll have a chance to have healthier families of their own tomorrow, thanks to Kent's school lunches.

CHILDREN THINK preparing and serving lunch is fun. "It's playing," said one. Nearly 700 of them in 12 of the county's 14 schools took part in the program last year. They served themselves a hot dish each day from January to March or April. This year SMA foods will be added to make a complete well-balanced lunch. Leaders of the project hope children will get a lunch like this, not only through the winter, but right through the school year.

BEFORE Kent's school lunch program started most children had to be satisfied with a dry sandwich or two to carry them through from their 6-o'clock breakfast to dinner. Children have fewer colds and upsets now, to keep them out of school. The number of underweight children is falling fast.

CHILDREN TAKE turns cleaning up. Where there's no room or equipment in the school house, a town woman is hired to cook and serve, and the mothers pay for her services, about $19 for preparing 2 months' worth of hot lunches for their 50 children.

"Nine million under-nourished children . . . are eligible for our free school lunches . . . This coming year we hope to reach 6 million of them . . . If we can afford several hundred dollars a year to educate a child, we can afford 10 dollars a year to keep that child physically fit for study. A full stomach is the best possible personal defense against fifth column poisons."

Milo Perkins, Administrator, Surplus Marketing Administration.

families were spending too much time trying to make every square yard of land yield a cash return, and too little time in growing a decent diet for themselves. Instead of pulling food out of their gardens or butchering it in their backyards, they were buying most of the food they put on their tables. When there's not much cash to spare, you buy what fills you up, and that's not always what you need. When you don't eat what you need, trouble sets in.

Tying all these threads together, these mothers with the help of their Home Demonstration Agent, decided there were things they should do to put a stop to the trouble that had set in. They discussed this and that plan. They agreed on one that would strike two gongs with one bowl of soup. Hot lunches, served at school, would not only provide sound nourishment for the children but they might also improve school attendance. The idea was good. Other communities had proved that. But between an idea and its execution there can be a long distance. It depends on how many people work together to shorten that distance.

These Kent women pulled together with a will. For 5 years they have been pulling together. The school lunch program they have developed is becoming as notable in its way as the tales of Kittie Knight's single-handed defiance of the British in 1812. When you see what it has accomplished, you can understand why.

ALL CHILDREN HELP: They divide the work. Before there were surplus foods, a typical week's menu ran like this: Monday, vegetable soup; Tuesday, dried beans; Wednesday, potato soup; Thursday, cocoa; Friday, vegetable soup. Some bring sandwiches, too. This winter, pork products, butter, dried and fresh fruits, vegetables, and cereals from the Surplus Marketing Administration will fill in to make a well-balanced lunch each day. SMA mid-morning fruit will store up added strength in Kent County's future farmers.

KENT COUNTY FAMILIES FOUND what a hot dish at noon could do toward protecting their children's health. They saw the results in school attendance records. Through 4 years of hot lunches attendance zoomed up from poorest in the State to well above average. Teachers saw the results in happier, more alert pupils. Children saw the results: "It tastes much better than old dry sandwiches." Health officials measured results in fewer underweight children, less sickness.

A hot dish each noon in winter months helps store up protective nutrients in growing bodies. But many school children's home diets are so meager that one dish alone can't bring them up to par. For them the SMA program fills in the gaps.

This year, while parents continue to can vegetables for soup, supply needed fill-in foods during the winter months, and work out details of the program, their work will be supplemented by the Surplus Marketing Administration. Added food shipped by them from Baltimore will change Kent County's noon hot dish program to a full course school lunch program. The most hard pressed farmer in the county will know that his child is getting one full well-balanced meal a day.

When Kent people found out what foods SMA would supply, it didn't take them long to arrange details. The Parent-Teacher Association and Homemakers Clubs which had worked on the lunches from the start agreed to serve as cooperating sponsors. They will see that food is passed around to all the schools, that menus are prepared, that balancing foods are supplied, that provision is made for preparing and serving the meals. The Health Department is ready and waiting to serve as legal sponsor to the program.

Kent County children will put their forks into their full course school lunches this fall along with millions of other children in over 40,000 schools throughout the country, who are now participating in the SMA's big triple-action school lunch program. Through its offices, farmers last year moved 100 million pounds of unsalable surpluses. In large cities where lunches for thousands of children are prepared in large central kitchens and distributed to schools by truck, work is provided for needy unemployed. When this year's goal is reached, 6 of the 9 million American children who go to school hungry each day will learn the difference between the listlessness and weakness they thought was childhood and the high spirited, eager feeling each day brings when children get the breaks they deserve in a country which has food enough for all.

Milk Glossary for Consumers

PART II

More definitions for people who want to understand what's behind consumers' milk problems

BASE SURPLUS: (See also Surplus, Classified Price.)

Base surplus plans are a device for sharing among a group of dairy farmers the proceeds from the sale of their milk under the classified price system.

Under the base surplus system, instead of paying farmers directly for the milk they buy, distributors usually put this money into a pool. As in other systems of payment, highest prices are paid for milk used as fluid milk and cream (bottle milk); lower prices are paid for milk used as butter, cheese, ice cream, and other dairy products. The money turned into the pool is then shared among all the farmers who take part in the base surplus plan.

In almost every milk market there are 2 kinds of milk producers: those who are full time dairymen and who produce milk the year round, and the in-and-outers and irregular dairymen—farmers who bring milk to market when the cost of producing it is cheap, as in summer months, and who let dairying slide when production costs go up in winter months.

Under this condition more milk is usually shipped to town during low cost production seasons than can be sold as fluid milk, that is, milk for which farmers receive the highest prices.

Persons who believe in the base surplus plan say that if any milk is to be sold at the high fluid milk price it should be the milk produced by full time dairymen who send milk to market in regular amounts all through the year. The corollary of this is that if any milk must be sold at the lower prices which prevail for milk used as butter, cheese, and ice cream, this milk should be the milk brought to market by the in-and-outers, and the irregular producers.

Consumers, they say, need milk every day of the year and it is because of the full time producers that consumers get milk every day of the year (providing they can afford it).

Theoretically, too, dairies are supposed to be able to handle milk more efficiently if it comes to market in a steady flow and not in a flood at one season of the year and a trickle in another season.

The base surplus plan is an arrangement which dairy farmers, economists, and milk distributors have worked out to apply to this situation. It offers higher returns to farmers whose milk production tends to be regular through the year, and lower returns to farmers whose milk production swings up in flush seasons and down in the low production months.

Operation of the base surplus plan usually starts with a survey of the milk market. The first step is to find out how much milk can be sold, at certain prices, in the form of fluid milk and cream (bottle milk).

The second step is to find out how much milk the farmers in the vicinity produce during the months when milk production is most closely in balance with these sales possibilities. This period is usually the months when production is lowest.

Then the proportion of the total amount of milk produced by each farmer in the low production months is worked out.

This proportion is applied to the average amount of fluid milk and cream sold each month during the year.

The last computation gives what is called the farmer's "base." It is the amount of milk for which he will be paid the "base" price (which is roughly equivalent to the fluid milk and cream price). When he delivers more milk to market than he is allotted in his base, he receives for the excess milk (surplus milk) what is called the surplus price, that is, a lower price.

Imagine an imaginary city that uses 100 gallons of fluid milk and cream a month. Then imagine that 10 farmers during the lowest production month of the year (November) each produce 10 gallons of milk or altogether 100 gallons of milk. Each farmer's share of the production during the low month would be 10 percent. Ten percent of the fluid milk and cream sales would be 10 gallons. Each farmer's base then would be 10 gallons. Then for all the milk they send to market up to 10 gallons a month the farmers get the base price, say 30 cents a gallon. If a farmer should send 15 gallons of milk to market in one month, he would get the base price (30 cents a gallon) for 10 gallons, and the surplus price (that might be 20 cents a gallon) for the extra 5 gallons.

Suppose there is a farmer who produces no milk at all during the low production month which determines the bases. That farmer does not have a base. All the milk he brings to market is paid for at surplus (low) prices.

In a rough over-simplified outline, that's the way the base surplus plan works. In practice there are many special variations of the base surplus plan. Two important variants are the open base surplus plan, and the closed base surplus plan.

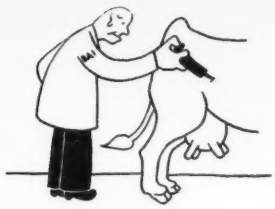
Under the open base surplus plan, the fluid milk and cream market is shared among the farmers periodically—that is, each farmer's base is re-computed at regular intervals with production the sole determinant of his base.

Under the closed base surplus plan, the bases are worked out every so often, but after the bases are once assigned it is much harder for a new farmer to get a base, or an old farmer to get his base increased drastically. Consideration is given not only to the amount of milk a farmer produces during the base making period (after the first bases have been established), but also to the length of time he has been producing milk.

Base surplus plans by themselves are like many other marketing devices, in that they work out for the advantage or disadvantage of farmers and consumers, depending on how they are used.

BLENDED PRICE: (See Classified Price Plan).

BULGARICUS MILK (Bulgarian buttermilk): A product made from pasteurized skim milk by fermenting it with lactic acid producing bacteria. It is alleged to have a beneficial effect on the intestinal tract.



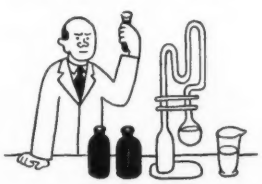
BUREAU OF ANIMAL INDUSTRY: An agency of the United States Department of Agriculture concerned with animal disease control and livestock improvement. It conducts research, administers the Federal Meat Inspection Acts and other Federal laws dealing with livestock, and undertakes work to control and prevent animal diseases.

In the milk economy the BAI is responsible, in cooperation with the States, for work looking toward the eradication of 2 very important diseases which affect the health of consumers: cattle tuberculosis and Bang's disease. (Bang's disease in cattle produces abortions, and unpasteurized milk from infected cows may produce the human disease known as undulant fever.)

In the program designed to eradicate these diseases, the BAI and the States enter into agreements with farmers by which the farmers promise to undertake measures to prevent the introduction or spread of diseases in their herds.

Tests are made by BAI and State inspectors to determine the presence of infected cows. When an infected cow is found, it is killed, and the farmer is partially reimbursed from the Federal and State funds for the loss of his animal.

Tuberculosis has been almost completely eradicated among milk cows.- Considerable progress has been made against Bang's disease. Both programs, however, require regular inspections, tests, and retests.



BUREAU OF DAIRY INDUSTRY: An agency in the United States Department of Agriculture which conducts research on methods of improving the production and utilization of milk and milk products.

Within the laboratories of the BDI a way has been found to eliminate the huge annual losses of milk nutrients resulting from the manufacture of butter and cheese. Foods made of the wasted by-products in dairy manufacture have been developed which may vastly increase the amount of milk nutrients, other than milk fat, which go into human consumption.

BUTTER: The legal definition of butter was fixed by an act of Congress, approved March 4, 1923. Under it, all butter which enters interstate commerce must be made exclusively of milk or cream, or both, with or without salt. It must contain not less than 80 percent by weight of milk fat. The remaining 20 percent by weight usually consists of water (16 percent), salt (2 percent), and proteins.

Nutritionists score butter high as food because of its taste appeal, because it is a good fuel food (it contains 3300 calories to the pound), and because it contains important amounts of Vitamins A and D (how much varies with the feed of the cows producing the butterfat and the time of the year when the butter is produced).

The Agricultural Marketing Service employs in the grading of butter the Official United States Standards for Quality of Creamery Butter promulgated by the Secretary of Agriculture. In determining the quality of butter the factors of flavor, body, color, and salt are considered. Of these, flavor is most important. The highest grade is U. S. 93 Score. To grade that high, butter must have a "fine, pleasing flavor." Butter with a "fine" flavor but with some slight defect, perhaps too much salt or color that is not quite right, gets a lower mark. Butter with "pleasing" flavor is graded 92, while 91 is the rating for butter with a "fairly pleasing" flavor. Deductions are made from these basic ratings for defects in color, body, or salt. The lowest score given is 85, and this goes to butter with a "pronouncedly" obnoxious weed, onion, or garlic flavor. Butter that has this flavor plus other defects falls below 85 and is not given a grade at all. The best butter produced usually scores in the neighborhood of 93. Applicants whose butter grades 92 or better may obtain privilege from the Agricultural Marketing Service to use a certificate of quality which they may enclose in the package.

Butter scoring from 88 to 93 is suitable for table use. Butter scoring from 85 to 88 is likely to find its best use for cooking purposes only. Butter which rates below 85 is classed as "no grade."

At the market, consumers are likely to find 4 different types of butter: sweet cream butter, sour cream butter, unsalted butter, and salted butter.

Sweet cream butter is butter that is made from sweet cream. In contrast to butter made from sour cream (the cream is soured either by natural processes or by the addition of a bacteria culture), sweet cream butter has a sweeter, creamier taste and keeps better. Sour cream butter has a more positive (slightly acid) flavor. Which one the consumer prefers depends upon his own taste.

Unsalted butter, which should not be confused with sweet cream butter, is simply butter that has not been salted. It is usually made of sweet or clear flavored cream. Sometimes unsalted butter is referred to in the trade as sweet butter but this use of the word "sweet" is confusing since some consumers mistake this product for sweet cream butter.

Salted butter, naturally, is butter to which salt has been added. Besides giving the butter a slightly different taste, the salt also acts as a preservative.

What Price Butterfat

When 2 grades or brands of milk sell at different prices and the only substantial difference between them is higher butterfat content in the higher price milk, here is one way to compute how much extra you pay for the extra butterfat.

The butterfat content of milk is stated as a percentage (by weight) of fat to whole milk. Each 1/10 of 1% is called a "point." Thus the difference between 3.5% and 4.0% milk is 5 points.

Compute how much extra is charged *per point* of butterfat. Multiply this by 372. The result tells you how much the extra butterfat would cost you per pound of butter, if you bought it as butter instead of buying it as extra fat in milk.

For example:

Brand X milk: 12¢ per qt. 4.2% btrft.
Brand Y milk: 10¢ per qt. 3.9% btrft.
Differences: 2¢ 3 points

The extra butterfat costs you 2/3¢ per point.

Multiply this by 372. The result is 248¢.

Paying 2¢ extra per quart for 3 points extra butterfat is equivalent to paying $2.48 for a pound of butter, assuming, of course, that the cheaper milk is equal to the more expensive in all other respects.

BUTTERFAT: Commercially, but not nutritionally, butterfat is the most valuable constituent of milk. Originally, when traffic first began in milk and milk products, butter and cheese were the least perishable forms of milk. While whole milk had to be used within a short time before it spoiled, butter could be kept many days, sometimes weeks. For this reason, milk as a product for sale, came to be valued as a source of butter. That is, the price of milk depended largely on its butterfat content.

Out of this difference in the perishability of fresh milk and butter, and the difference in the markets for the 2 there grew the practice of paying different prices for milk depending on the use to be made of it.

Milk to be used as fluid milk sells for one price. If it's not to be used as fluid milk, then the milk commands another price, which is determined by its value as the raw material of butter (or cheese, or evaporated milk, or ice cream).

What you get finally is a paradoxical situation in which the minimum price of one food, milk, is determined by the price you pay for another, butter.

Butterfat then is the key ingredient of milk commercially. It is not the only valuable nutritional ingredient milk possesses. Far from it. Skim milk is a storehouse of essential nutrients. Unfortunately many consumers have been hypnotized by the commercial importance of butterfat and for this reason prize a milk that is extra rich in butterfat above its worth.

When consumers pay premium prices for "richness" in milk, they are sometimes buying butter at rates that may range anywhere up to $3.00 a pound.

When consumers do not look just for richness in milk, they can usually rely on their milk ordinance, provided it is a good ordinance and is efficiently enforced, to see to it that they get safe milk which contains a desirable minimum amount of butterfat. Legal butterfat minimums for milk usually range from 3 to 3.5 percent.

The price paid farmers for their milk is geared to its butterfat content. When the butterfat content falls below a stated standard butterfat minimum, deductions are made for each tenth of one percent of butterfat failure. Farmers are similarly paid bonuses for each tenth of one percent butterfat their milk contains above the standard. Average milk contains about 3.74 percent butterfat.

Nutritionally, butterfat is an important fuel food, since it contains about 4100 calories to the pound. It is also an important source of Vitamin A and a good source of Vitamin D.

BUTTERMILK: (See also Acidophilus Milk, Bulgaricus Milk, Condensed Buttermilk). Genuine buttermilk, which is not the buttermilk usually sold by city dairies, is the liquid that's the by-product of butter making. It contains most of the nutrients in milk except the milk fat. It contains Vitamin G, but not Vitamins A and D which are found in milk fat. Roughly, buttermilk is from 90 to 92 percent water, from 3 to 3½ percent protein, something less than ½ percent milk fat, from 3.5 to 4.5 percent lactose, from 0.5 to something less than one percent mineral (calcium and phosphorus) and something less than 0.5 percent lactic acid.

Commercial buttermilk, the kind that most city consumers buy, is pasteurized skim milk (the milk fat removed) which has been treated with bacteria in a way to produce a product like real buttermilk. Sometimes flakes of butter (not enough to be an important addition to the diet) are added to it to make it resemble true buttermilk in appearance.

Buttermilk, since it contains bacteria which are supposed to attack the putrefactive bacteria which accumulate in the intestinal tracts, is recommended for treatment of certain digestive disturbances. The curd is more easily digested than the curd of fresh whole milk, and for this reason is also occasionally recommended by physicians for some adults and children.

It has all the dietary qualities of skim milk, and when it is priced at less than whole milk, it offers families an opportunity to get most of the essential milk nutrients at bargain levels.

BUYING CLUB: (See Cooperatives).

C

CALCIUM: (See Minerals).

CARE OF MILK: When milk is delivered, it should not be permitted to stand uncovered on the porch or on the step. A covered box should be secured to contain the milk until it is taken into the house.

Milk should be placed in a refrigerator as soon as possible. When kept in a refrigerator at a temperature of 45 degrees, milk may be stored 3 or 4 days.

Milk products should be kept covered and kept in coolest portion of the refrigerator.

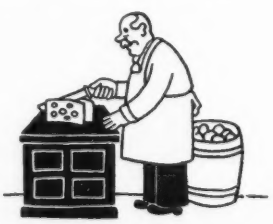
Never mix new milk or cream with old milk or cream.

Before opening milk bottles with the flat (unhooded) caps, wash the top of the bottle.

If there is an infectious disease in your house, don't return milk bottles until you get advice on the matter from the health department.

CASEIN: Most important protein in milk. It makes up 3 of the 3.6 percent of proteins contained in cow's milk. This protein contains the tissue-building food element, phosphorus, which is an absolutely essential constituent of every living cell whether bone, tooth, muscle or nerve. When milk sours, the curdy flakes which form are largely casein. About half of the milk-solids-not-fat produced annually is diverted away from use as human food to the feeding of livestock on farms or to industrial uses.

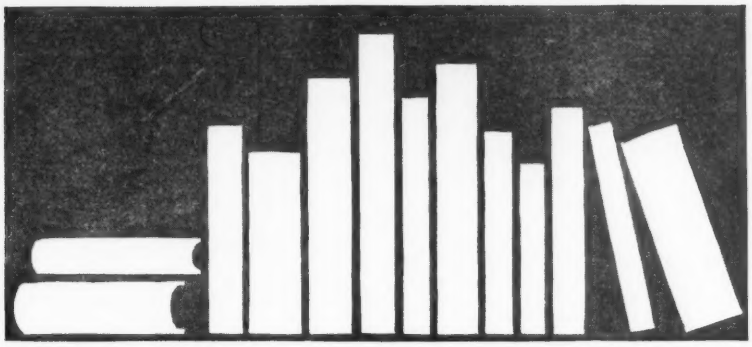
CERTIFIED MILK: (See Raw Milk).



CHEESE: Is made by a kind of fermentation of milk. Casein (one of the milk proteins) is its chief ingredient. The milk fermented may be whole milk, skim milk, or milk enriched with cream.

In the manufacture of cheese, the curd is separated from the whey (the watery part of the treated milk as distinct from the clabbery part which is the curd). Whey ordinarily

[Concluded on page 14]



CONSUMERS' BOOKSHELF

THE CONSUMER AND THE STANDARDIZATION OF FARM PRODUCTS, by Catherine M. Viehmann. 1940, pp. 22, illus. Address: Agricultural Marketing Service, U. S. Department of Agriculture, Washington, D. C. Free. Cites the factors which determine grade of quality in the following commodities: meat, poultry, canned poultry products, eggs, butter, rice, honey, fresh and canned fruits and vegetables. Discusses containers and grade specifications. Bibliography.

TRACTOR REPAIR AND MAINTENANCE, by R. I. Shawl. Circular 499. 1939, pp. 58, illus. Address: Extension Service, University of Illinois, Urbana, Ill. Single copies free; in lots of 3 or more 8 cents a copy. Contains check-list, and information on repair and maintenance of all parts of a tractor.

CONSUMER EDUCATION: WHY AND HOW. Bulletin No. 75. 1940, pp. 40, mimeo. Address: Curriculum Laboratory, George Peabody College for Teachers, Nashville, Tenn. 25 cents. Proceedings of a conference on consumer education held at George Peabody College for Teachers, May 17–18, 1940. The report is divided into two sections corresponding to the two major themes of the conference, "Basic Questions in Consumer Education," and "Current Practice in Consumer Education." On the first of the conference themes the following addresses are included: "Why Consumer Education," "What Is Consumer Education?" "The Education of Consumers Through Schools and Colleges," and "The Objectives of Consumer Education." On the second theme are: "Consumer Education in Secondary Schools," "Consumer Education and the Federal Government," and "Current Practice in Consumer Education in Liberal Arts Colleges." A summary of group discussions relating to the contribution of various subject matter fields to consumer education is included.

MAKING CONSUMER EDUCATION EFFECTIVE. 1940, pp. 253. Address: Institute for Consumer Education, Stephens College, Columbia, Mo. $1.00. The proceedings of the Second National Conference on Consumer Education, held at Stephens College, April 1–3. Addresses are grouped under the following main divisions: "Special Approaches to Consumer Education" (i. e., Labor, Better Business Bureaus, and Cooperatives); "What Should Be Taught About Advertising in a Consumer Course," "What Is Consumer Education?" "Vitalizing Economic Education," "Commodity Information for Teachers," and "Current Economic Issues of Interest to Consumers." Summarizes the discussions of 18 round table groups which considered a wide variety of problems relating to consumer education.

THE FEDERAL TRADE COMMISSION, ITS DUTIES AND PROCEDURE. 1940, pp. 5. Address: Federal Trade Commission, Washington, D. C. Free. In addition to a general outline of the work of the Federal Trade Commission this booklet contains an appendix giving in detail the work of the Radio and Periodical Division, a list of the various investigations carried on by the Commission, comments by representatives of industry on Trade Practice Rules and excerpts from court opinions relating to the Commission's work.

THE FEDERAL TRADE COMMISSION AND CONSUMER PROTECTION, an address by R. E. Freer, member of the Federal Trade Commission, given before the Educational Buyers Association. 1940, pp. 6, mimeo. Address: Federal Trade Commission, Washington, D. C. Free.

A STUDY OF QUALITY AND RETAIL PRICES OF OHIO-PACKED VEGETABLES, by Charles W. Hauck. Mimeographed Bulletin No. 123. 1940, pp. 26. Address: Department of Rural Economics, Ohio State University, Columbus, Ohio. Free. This investigation of the relation between quality and retail prices of 65 cans of corn and 65 cans of tomatoes packed in Ohio canneries, was conducted by the Department of Rural Economics of Ohio State University, and the Ohio Agricultural Experiment Station in cooperation with the Ohio Canners Association. Among the conclusions were: (1) prices are almost wholly unreliable as guides to quality, and (2) that some means, other than price, must be available to indicate quality to the buyer if she is to buy intelligently and avoid wasteful and uneconomic expenditure.

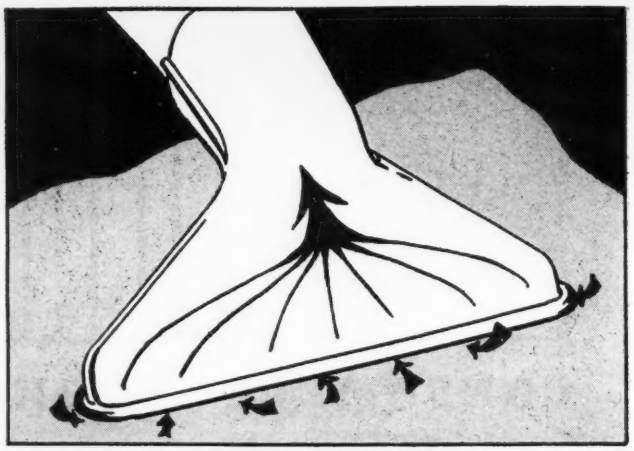
CHILDREN'S BODY MEASUREMENTS FOR SIZING GARMENTS AND PATTERNS, by Ruth O'Brien and Meyer A. Girshick, U. S. Bureau of Home Economics. Department of Agriculture Miscellaneous Publication No. 365. 1939, pp. 25. Address: Superintendent of Documents, Washington, D. C. 20 cents. This report gives detailed statistical information on the body measurements of 133,807 children between 4 and 17 years of age. These measurements were used in developing a proposed standard system of measurements for sizing children's clothing.

CONSUMER DEMAND IN MISSOURI FOR SELECTED ARTICLES OF HOUSEHOLD TEXTILES, by Jessie V. Coles. Research Bulletin No. 301, 1939, pp. 46. Address: Agricultural Experiment Station, University of Missouri, Columbia, Mo. Single copies free. Limited supply. Discusses the results of a survey of consumer demand for sheets, blankets, window curtains, and towels under the following headings: demand for specific qualities; effect of income on practices and preferences in purchasing; difficulties encountered in buying.

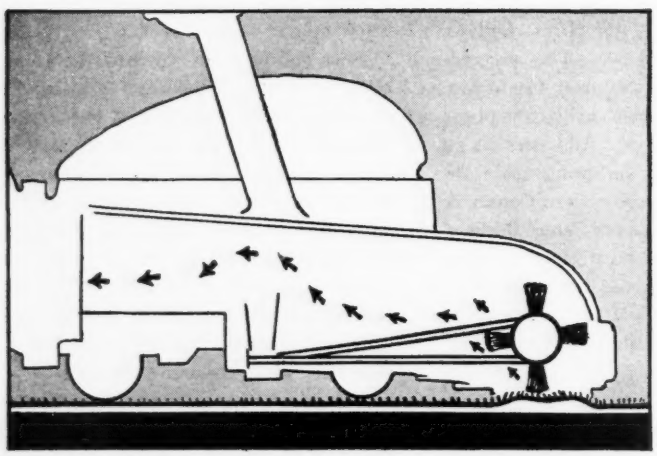
CONSUMER DEMAND IN MISSOURI FOR SELECTED ARTICLES OF CLOTHING, by Jessie V. Coles. Research Bulletin No. 300. 1939, pp. 58. Address: Agricultural Experiment Station, University of Missouri, Columbia, Mo. Single copies free. Limited supply. This survey covered house dresses, afternoon dresses, slips, and hosiery. Treats of the character of present purchases; the demand for specific qualities; the effect of income on practices and preferences in purchasing; difficulties encountered in buying.

Pointers on Vacuum Cleaners

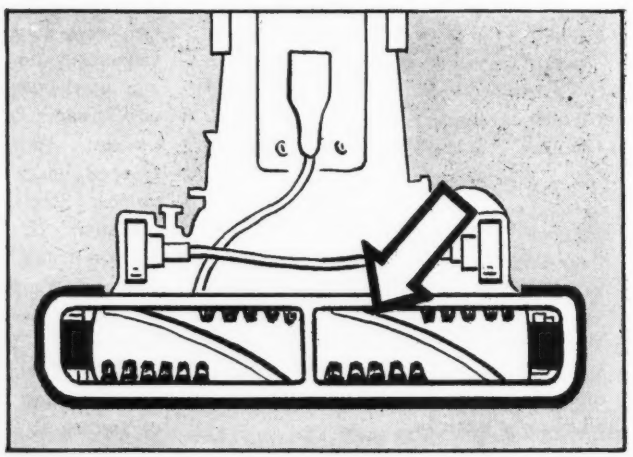
For less than 50 cents a month you can buy and run a "vacuum." When you set out to buy, you can be no surer of picking the right one than you can of getting your man in "Blind Man's Buff." These tips on how to buy which come from the Bureau of Home Economics are general, but following them is good buying practice



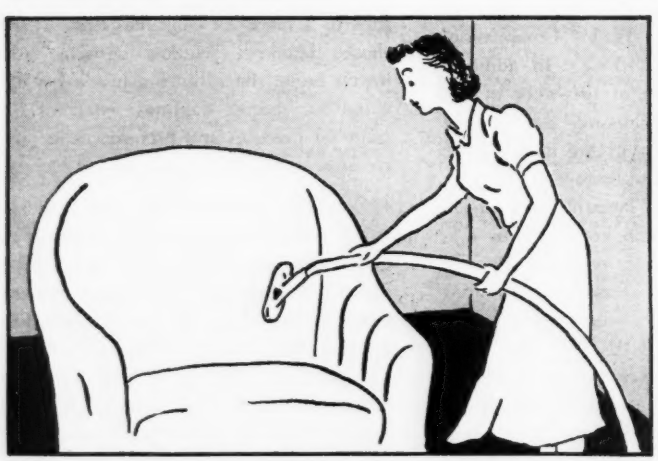
MOST CLEANERS depending on suction alone remove less dirt than motor-driven brush cleaners. Women preferring suction cleaners may need to run them longer than they would motor-driven machines to get comparable results.



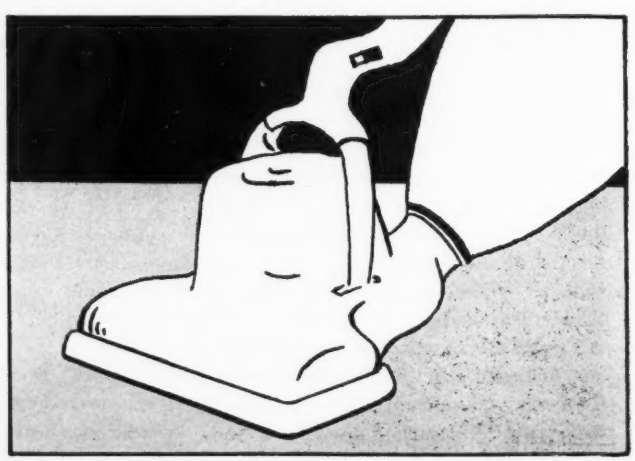
MOST MOTOR-DRIVEN brush machines have rotating brushes which loosen dirt. Suction carries it off. Ten to 20 minutes a week are recommended for cleaning a 9×12 rug with a motor-driven brush cleaner.



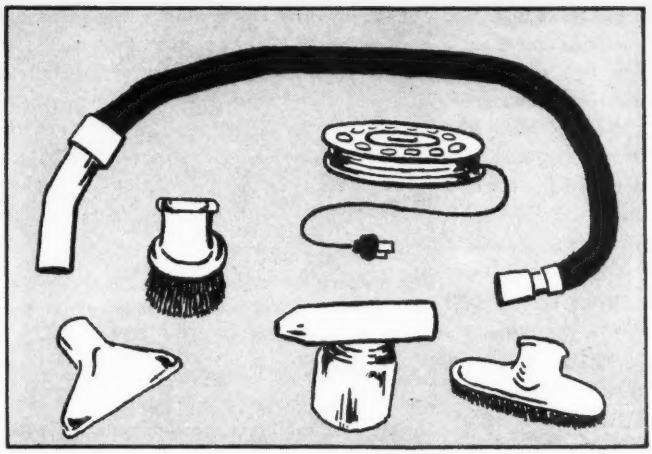
OTHER CLEANERS have steel bars or metal-tipped rubber vibrators on the cylinder in addition to brushes. These vibrate the carpet and help loosen the dirt, simulating the old-fashioned beating carpets got before the vacuum cleaner era.



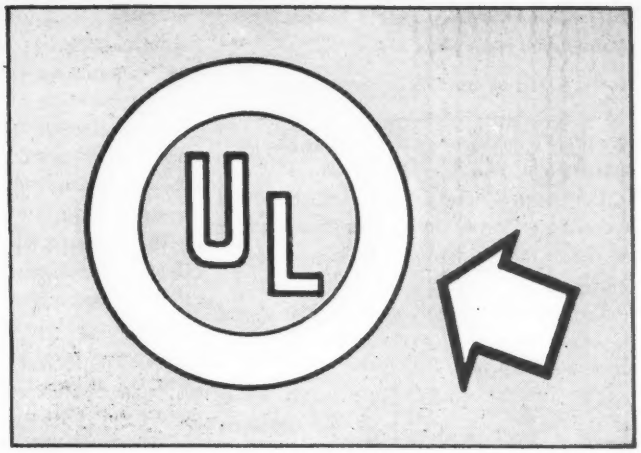
KEEP YOUR NEEDS in mind when buying. Suction cleaners are easy to handle. They are most effective when used on upholstery, draperies, and light rugs with short pile, where dirt does not burrow too deeply.



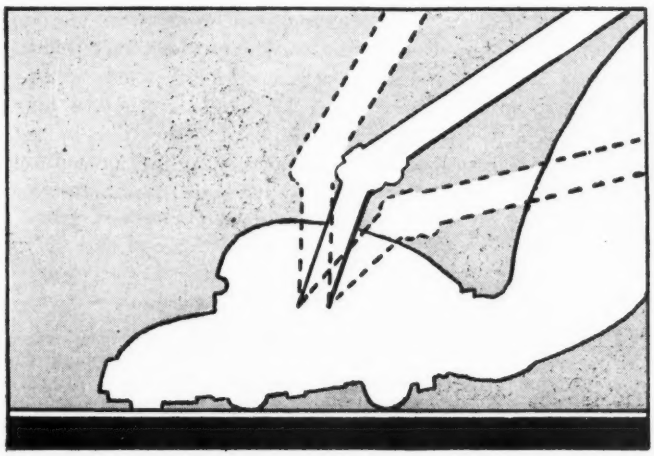
MOTOR-DRIVEN BRUSH machines are considered best for heavy rugs. The beating, brushing motion helps stir up the dirt ground down in heavy pile. Once loosened, suction can more easily get hold of it, carry it off.



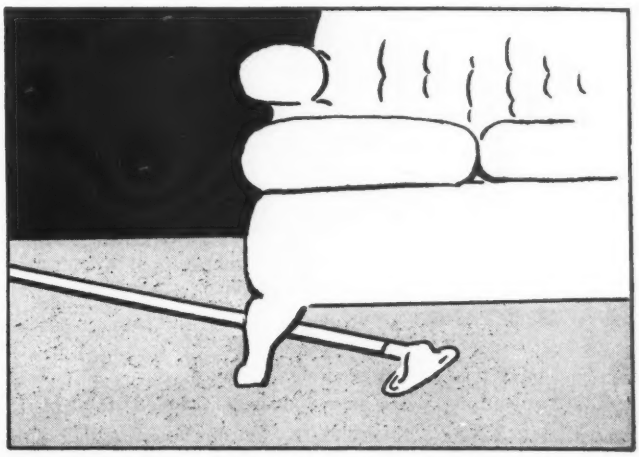
WHEN CONSIDERING special features and attachments, decide whether they're worth added expense. A cleaner's main job is cleaning. Be sure you will use humidifiers, sprayers, polishing devices enough to make them worth the cost.



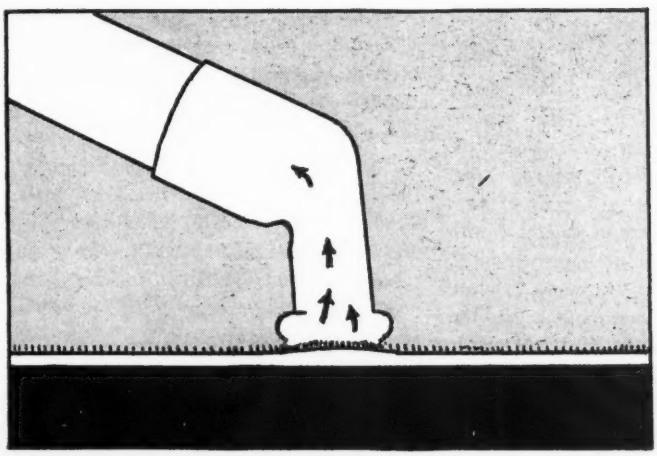
AN UNDERWRITERS' LABORATORIES LABEL is insurance against electrical defects, not a guarantee of performance. Take the cleaner home to try. Household dirt is not like that sprinkled on by salesmen.



DOES THE NOZZLE adjust simply to different rug thicknesses? Does the handle raise and lower easily and stay in place at each of the 3 use heights? Is it easy to operate? Too heavy cleaners are hard to carry up and down stairs.



DOES THE CLEANER run quietly without too much vibration? Can it be used under most heavy pieces of furniture? Is it accompanied by a clearly stated year's guarantee, and can you get reliable, convenient repair service?



AFTER YOU'VE BOUGHT your vacuum cleaner help make it do its best job by seeing that the nozzle makes a good seal with the rug (this gives best suction). Follow manufacturer's instructions for adjusting the nozzle and all other attachments.

CLEAN DIRT CONTAINER thoroughly after each use, keep brushes clean and adjusted. Follow directions for lubrication and storing carefully. Keep attachments together in bag or original box.

MILK GLOSSARY FOR CONSUMERS

(Concluded from page 10)

is either fed to animals or thrown away. It contains most of the lactose in milk, some of the protein, and part of the vitamin and mineral content of milk. (See *Waste.*)

But while important and valuable food ingredients may be lost in the manufacture of cheese, cheese is none the less a concentrated food of high value.

Five ounces of whole milk cheddar cheese is the equivalent in nutritive value of a quart of whole fluid milk.

The nutrients contained in particular kinds of cheese depend upon what the cheese is made of—skim milk, whole milk, or milk enriched with cream.

Skim milk cheese, of which cottage cheese is the most important, is an inexpensive source of protein, of Vitamin G (riboflavin) and of the important milk minerals.

When cheese is not made of whole milk, it is usually described as "part skim" or "skim."

Cheeses made of whole milk are naturally richer energy sources than other cheeses.

The Food and Drug Administration, under the Food, Drug, and Cosmetic Act of 1938, will soon establish definitions for the more common varieties of cheese. Under the old Food and Drug Act, it formulated some unofficial definitions which are of interest.

Cheddar cheese, by these definitions, contains not more than 39 percent water. The residue without the water must contain at least 50 percent fat on a moisture-free basis.

Pineapple, limburger, brick, and nuefchatel cheese (all made from whole milk) similarly contain not less than 50 percent milk fat on a moisture-free basis.

Other whole milk cheeses contain varying amounts of milk fat: Gouda, 45 percent after the water is removed; cream cheese, 65 percent on the water-out calculation.

Stilton cheese, which is made of whole milk with or without added cream has no prescribed milk fat minimum. Nor does roquefort cheese or gorgonzola cheese, which is a whole milk product.

Edam, Swiss, Camembert, Brie, and Parmesan cheeses are made either of whole milk or of skim milk. When they are made of skim milk, the label must indicate this fact if the cheese enters interstate commerce. Both Swiss and Camembert cheese, under the unofficial cheese definitions, contain 45 percent milk fat on the water-free calculation.

Process cheese, which makes up a good deal of the cheese which consumers see piled in jars or packages on the top of the refrigerator at their grocery store, has been unofficially described by the Food and Drug Administration as "the modified cheese made by comminuting (grinding up) and mixing one or more lots of cheese into a homogeneous plastic mass, with the aid of heat, with or without the addition of water, and with the addition of not more than 3 percent of a suitable emulsifying agent."

Process cheese by itself means processed cheddar cheese and must not contain more than 40 percent water and not less than 50 percent of milk fat on a water-free basis.

When process is used with the name of another cheese, it means that that kind of cheese has been processed. Then this process cheese should measure up to the standards set for that variety of cheese.

American cheddar cheese, the glowing yellow variety which most people think of when they think of cheese, is sometimes called by other names, Daisy, Long Horn, and Young America. These names refer to the size and shape of the cheese.

Grades have been established by the Department of Agriculture and by many States for American cheddar cheese. The U. S. grades are, like the butter grades, voluntary.

Cheese, like butter, is scored when it is graded. Determining the quality of a cheese involves rating it on 4 factors: flavor, for which a cheese may receive up to 30 points; body and texture, for which 40 points can be given; finish and appearance, which count 20 points; and color, which counts 10 points. A perfect scoring cheese would get 100. Actually, few cheeses score higher than 93. Cheese that doesn't rate 85 is not scored at all.

When a cheese is graded by a Federal grader, the grade may be stamped on the rind or on the container.

These grades, however, are rarely seen by consumers, though there is no reason why consumers shouldn't see them, and for that matter ask for them when they aren't there.

CHOCOLATE MILK: Whole milk to which chocolate has been added as flavoring.

Most chocolate flavored milk beverages now on the market, however, are made of skim milk and not whole milk. Under Federal regulations, such products when sold across State lines may not be called chocolate milk, but must be called by some name which indicates that they are not made of whole milk. In some States similar regulations are also in effect.

Lard Gets a Standard

LARD HAS HAD its face lifted by 3 surgical paragraphs recently made public over the signature of the Secretary of Agriculture. The paragraphs set forth 2 standards of identity: one for lard, and the other for a product made from pork fats less desirable than those used in lard. The latter product after November 1, 1940, is to be called rendered pork fat. At present it is sold as lard.

Lard after November 1, if it enters interstate commerce, must be made exclusively from the more desirable hog fats. Specifically, under the new standard of identity, lard is the "fat rendered (melted) from fresh, clean, sound, fatty tissues from hogs in good health at the time of slaughter, with or without lard stearin or hardened lard" (that's to make it firm if necessary). Bones, blood vessels, scrap fats, skimmings, and the like can't be used to make lard. Materials for rendering into lard must also be reasonably free of muscle tissue and blood.

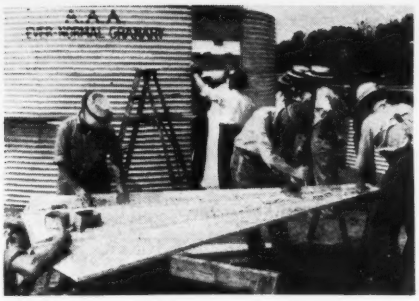
Rendered pork fat, a lower grade of cooking fat, which should sell for less than lard, must also be made from the fat of healthy animals. This product, however, may be made from fats that have been cured or cooked and which contain meat food products other than pork fat. Unlike lard, rendered pork fat may be processed in part from edible organs, and some bones.

Consumers have long been asking for quality grades to enable them to make sure that they get the quality of product they think they are buying.

Technical difficulties still stand in the way of A–B–C grades for lard, but the present standards of identity are a move in the direction of more informative labeling.

The lard standards were issued under authority given in the Meat Inspection Act of 1906. Similar standards of identity which are being issued for other foods, mainly canned fruits and vegetables, and dairy products, come under the aegis of the Food, Drug, and Cosmetic Act of 1938.

These lard standards, incidentally, are compulsory. A–B–C grades for food products, on the other hand, are voluntary. While the Department of Agriculture has worked out simple A–B–C grades for many foods, no processor or dealer need use them unless he wants to.



Storing Our Abundance

ALARMISTS who worried over the fate of the millions of bushels of wheat and corn stored in the Nation's Ever-Normal Granary can rest easy. There is no shortage in sight of these precious grains resulting from deterioration or disease while under storage.

The grains are stored into warehouses and bins scattered throughout the corn and wheat belts as security for Government loans to farmers. When loans are repaid, the farmer gets his security back. Sometimes for months, and even longer periods, the grains remain in the granaries before they reach the market. Often the question is posed: Is the Ever-Normal Granary—especially its farm bins—a safe place to store our abundance?

At the close of the 1939 loan period Department of Agriculture inspectors looked over the wheat bins in 21 western and midwestern States. They wanted to see how the stored grains had come through a season of extremely serious weevil infestation. In 65,000 bins, on approximately 33,000 farms, they found that less than 2 percent of the granaries had suffered from the infestation. Practically all of the infestation was checked before too much damage was done, and neither the borrower nor the Government suffered any loss. For this remarkable record officials credit the regular inspections of the bins made for protection of borrower and Government. The farmer who stores his loan collateral on the farm assumes full responsibility for keeping the wheat in good condition and the periodic inspections help him do the job.

Almost a half-billion bushels of corn were stored on farms under the corn loan program through the past winter, spring, and summer. Some of this corn has been in storage as long as 3 years. At the close of the summer, inspectors found that 98.7 percent was of as good quality as when placed under loan. Of the corn stored in steel bins about 60 million bushels—only 2½ percent—had shown any deterioration, and only 0.4 percent had been removed from bins because of damage or threatened damage.

FOOD COSTS. Another slight decline (1 percent) in retail costs occurred from July to August. This reduction, like that in the previous month, was largely due to lower fresh fruit and vegetable prices. Lower prices for these items more than offset a seasonal increase in egg prices. Prices of other foods changed but little during the period.

Notwithstanding this second successive reduction, food costs in August were still slightly (3 percent) higher than last year. Except for August 1939, however, they were the lowest they have been at this time of the year since 1934. This increase in costs over last August was largely the result of higher prices for meats, dairy products, and cereals and bakery products. Prices of other foods were about the same as last year, or slightly lower.

FOOD SUPPLIES. Production of many crops has turned out to be larger than expected earlier this year as the result of favorable weather in recent weeks. Nevertheless there has been no significant change in the general food supply outlook for the 1940–41 season. Supplies of major foods still are expected to be about the same or larger than in most recent years and above average.

FRUITS. More citrus fruits, about the same amount of grapes, and fewer apples than last year are expected during the remainder of 1940. Peak marketings of apples and grapes generally come in October.

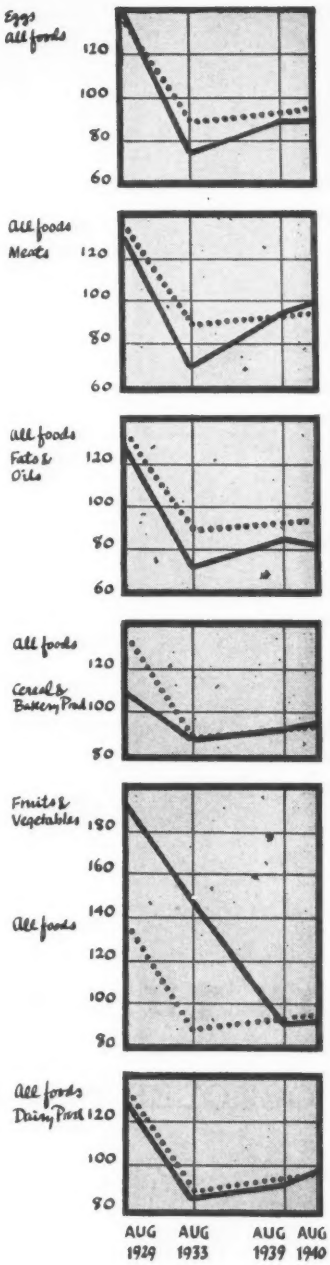
VEGETABLES. Outlook is for larger supplies of potatoes and cabbage, but smaller amounts of onions and sweetpotatoes than last fall and winter.

CRANBERRIES. Supplies, which generally are marketed from September to December, probably will be 20 percent smaller than last year's big crop.

MEATS. Seasonal increases in beef, pork, and lamb supplies are expected in October. During the remainder of 1940 more lamb, and about the same amount of beef and pork as a year ago are in prospect.

DAIRY PRODUCTS. Production of butter, cheese, evaporated milk, and other dairy products is expected to continue above 1939 levels during the remainder of the year.

EGGS. Supplies are expected to decrease seasonally through November and to continue below their 1939 level the rest of the year.



CANNED VEGETABLES. Peas probably will be more plentiful than last year, but smaller amounts of corn, string beans, and tomatoes are expected. Supplies of all vegetables are expected to be slightly smaller (6 percent) than a year ago, but about the same as average (1935–1939).

TURKEYS. Supplies are expected to be slightly larger (1 percent) than last year's record size crop.

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